

EPOS INSIGHTS #4

DATA COLLECTION IN THE INDUSTRIES

Led by:










EPOS insights are publications summarising the most relevant outcomes of the EU funded EPOS project. The overall aim of the EPOS project is to enable cross-sectorial industrial symbiosis and provide a wide range of technological and organisational options for making business and operations more efficient, more cost-effective, more competitive & more sustainable across process sectors.

INTRODUCTION

This insight summarises the data collection process carried out in the EPOS sites & clusters in order to build data capacity and knowledge per sector, and setting a common sector reference situation. This work sets a

common baseline for each process industry, and provides a first building block for an harmonised sector blueprint for further improvement via cross-sectorial symbiosis.

The main focus in this work is on:

-  building data capacity per sector
-  knowledge per sector
-  setting a common sector reference
-  mapping the needs
-  prospects for clustering
-  drafting the potential for cross-sectorial symbiosis
-  selecting the key performance indicators (KPIs).

DATA PROCESS

A stepwise approach is proposed:

- Step 1: In the first iteration, all industry sites prepared and sent plant outlines to harmonise the data collection process.
 - › Available energy studies and audits
 - › Previous reports on resource efficiency and industrial symbiosis opportunities
 - › Analysis of SCADA information and systematic data clean-up
 - › Interviews and data gathering from site storage drives
 - › Raw materials composition and energy use monitoring
 - › Equipment capacities and normal operating parameters
 - › Analysis and definition of site-specific KPIs
 - › Identification of main energy consumers
- Step 2: In a next step all industrial partners started a first data acquisition phase, based on:

RESULTS

A first list of data and parameters (measurements and calculations) for each site was defined.

- › The list was reviewed by the universities to check its comprehensiveness for further use in the EPOS tool
- › A global list was approved containing measurements from about 6000 sensors gathered from all EPOS sites

One database per sector was created.

CONCLUSION

The final databases are different per sector due to the realities met at each site.

However, it was taken into account that:

1. the solutions are as much as possible transferable to other sites in the same sector
2. all solutions are in a format that can be read by the EPOS tool

In this way the list of data gathered per sector serves as a basis for the later EPOS tool, and for the definition of sectorial and cross-sectorial KPIs.



COLOPHON

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